

## PATENT COOPERATION TREATY

PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 29 JUL 2005

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| Applicant's or agent's file reference<br>case21914   | <b>FOR FURTHER ACTION</b><br>See Form PCT/PEA/416                    |  |
| International application No.<br>PCT/EP2004/009781   | International filing date (day/month/year)<br>02.09.2004             | Priority date (day/month/year)<br>02.09.2003 |
| International Patent Classification (IPC) or national classification and IPC<br>A23K1/00, A23K1/16, A23K1/18   |  |  |
| Applicant<br>DSM IP ASSETS BV et al  |  |  |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> |  |  |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>   |  |  |
| Date of submission of the demand<br><br>21.03.2005   | Date of completion of this report<br><br>01.08.2005                  |  |
| Name and mailing address of the international preliminary examining authority:<br><br> European Patent Office - P.B. 5818 Patentlaan 2<br>NL-2280 HV Rijswijk - Pays Bas<br>Tel. +31 70 340 - 2040 Tx: 31 651 epo nl<br>Fax: +31 70 340 - 3016  | Authorized Officer<br><br>Rooney, K<br><br>Telephone No. +31 70 340- |  |

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**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/009781

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-3 as originally filed

**Claims, Numbers**

1-16 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
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International application No.  
PCT/EP2004/009781

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

|                               |             |              |
|-------------------------------|-------------|--------------|
| Novelty (N)                   | Yes: Claims | 1-8,13-14,16 |
|                               | No: Claims  | 9-12,15      |
| Inventive step (IS)           | Yes: Claims | 1-8          |
|                               | No: Claims  | 9-16         |
| Industrial applicability (IA) | Yes: Claims | 1-16         |
|                               | No: Claims  |              |

2. Citations and explanations (Rule 70.7):

**see separate sheet**

**Re Item V.**

1 The following documents are referred to in this communication:

- D1: ALEXIS, M. N., ET AL.: Aquaculture, vol. 179, 1999, pages 447-456, XP002306329 Elsevier
- D2: WO 02/24002 A (MARS UK LTD ; HARRIS PATRICIA (GB)) 28 March 2002 (2002-03-28)
- D3: DATABASE WPI Section Ch, Week 200355 Derwent Publications Ltd., London, GB; Class D13, AN 2003-245950 XP002306330 & KR 381 534 B (JUNG D W) 23 April 2003 (2003-04-23)
- D4: EP-A-0 357 169 (ASAMA KASEI KK) 7 March 1990 (1990-03-07)

2 Novelty

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 9 and 15 is not new in the sense of Article 33(2) PCT.

Note: The use of brackets in claim 1 is not a limitation to the scope of these claims and the contents thereof are interpreted as optional features.

The document D1 discloses an animal feed composition comprising a granulate which contains STAY C-35 (trisodium L-ascorbyl-2-monophosphate) and a lipid (see D1: page 448-449 and table 1).

The document D2 discloses an animal feed composition consisting of STAY C (a 19% sodium salt) and plant oil (see D2: page 13, paragraph 2; page 20, line 24 - page 21, line 11 and page 24, paragraph 3).

The document D3 discloses an animal feed composition comprising Stay C and lipid (see D3: abstract).

3 Inventive Step

The subject-matter of claims 1-8 meets the criteria of Article 33(1) PCT, because these claims appear to involve an inventive step in the sense of Article 33(3) PCT.

The closest prior art to the subject-matter of claim 1 is the document D4. This document discloses that vitamins in general may be stabilised against enzymic deterioration by dispersion (coating) in lipid (see D4: page 3, line 41 - 51). The subject-matter of claim 1 differs from this document in that the vitamin is specified as being a phosphate derivative of vitamin C and the deterioration referred to is that of hydrolysis by phosphatase. There is no teaching in the prior art which might lead those skilled in the art to the application of this solution to the problem at hand. The prior art teaches away from the protection of the phosphate derivative from the enzyme as the current practice is to promote hydrolysis in vivo in order to release the full vitamin activity.

#### **4     Dependent claims**

Dependent claims 2-8 satisfy the EPC with respect to novelty and inventive step.

Dependent claims 10-12 are disclosed in the document D1 and D2.

Dependent claims 13-14 and 16 are disclosed appear to be selections from the range of possible formulations described in the documents D1 - D3.